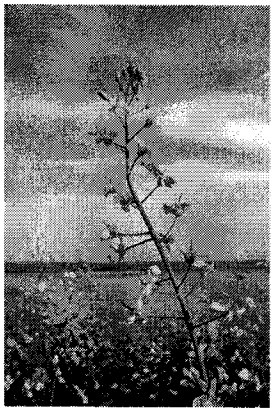
Biodiesel in Montana – SB 432

Biodiesel is an alternative to petroleum-based diesel fuels. Rather than petroleum, biodiesel is made from plant oil, such as canola, camelina, or other crops, which can be grown by Montana farmers. These dry weather crops are suited to grow well in Montana, allowing Montana farmers to produce a percentage of Montana fuel. No conversion is necessary to run biodiesel in a standard diesel engine. A 2% Biodiesel Blend will require 9.3 million gallons of fuel (MT Department of Transportation)



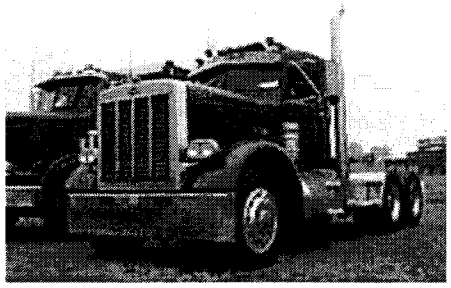
Canola, ideal for growing in Montana climates, is a biodiesel crop

Benefits:

Cleaner emissions: Biodiesel is a much cleaner fuel than regular diesel. A blend of biodiesel proportionately reduces the emissions of carbon monoxide, ozone forming hydrocarbons, hazardous diesel particulates, and acid rain-causing sulfur dioxide. (National Biodiesel Board)

Same performance: Biodiesel has a near similar performance to petroleum diesel fuel. There may be a slight (1%) decrease in torque, performance. This loss is very minor and is offset by the increased lubricity of the engine, so that drivers do not notice the difference.

Better for engines: Biodiesel provides superior fuel lubricity, even at very low blend levels. Sufficient fuel lubricity is necessary to reduce equipment wear and premature breakdown. Bench scale testing has shown that 1% biodiesel blend can improve the lubricity of diesel fuel 65%. (National Biodiesel Board) Requiring a biodiesel blend can reduce fleet operating costs through increased equipment life. Biodiesel is an ideal additive to comply with the EPA's Ultra-Low Sulfur Diesel guidelines, which removes lubricity from the fuel.



The American Trucking Association supports nationwide 5% blend requirement

Economic Development

In 2002, Minnesota passed a law requiring all B2 (a 2 percent blend in all biodiesel sold) by 2005. To meet this demand, 16 million gallons of biodiesel were required. The requirement jumpstarted Minnesota's biodiesel crop (soybean) industry, which now produces 60 million gallons a year. This has created an annual output impact of $928 million, employment opportunities for 5,668 jobs, and a "multiplier impact" benefiting various economic sectors, such as agriculture, manufacturing, construction, transportation, trade, services, finance, insurance, and real estate. (MN Dept. of Agriculture)

Common Biodiesel misconceptions:

Cold Weather: All diesel fuel gels at a certain cold temperature. Normal diesel has summer blends (which gel at higher temperatures) and winter blends (with additives to lower the gel point. Normal diesel gels at around 0° F, while 100% Biodiesel gels around 34° F. A 2% blend does not significantly change the gel point. Winter additives have to be added to diesel anyway. Evidence suggests that blends of biodiesel (up to B20) actually perform better with additives. Biodiesel with winter additives has a better cold filter plugging point than normal diesel with winter additives (National Biodiesel Board)

Gel Points			
Standard Diesel	**B2**	**B20**	**B100**
0° F	0° F	7° F	34° F

Clogged Fuel Filters: Fuel filters do often clog the first time biodiesel is put into an engine. Since biodiesel is cleaner than traditional fuels, it acts as a solvent and cleans the fuel lines of the accumulated buildup from petroleum use. The fuel filters clog the first time because biodiesel is actually a cleaner fuel. After the first filter change (2-3 months after biodiesel introduction), there should be no additional filter problems.

Conversion: No conversion is necessary to put biodiesel in a standard diesel engine. The only concern lies with older rubber in fuel lines and seals. Biodiesel may corrode the rubber in older vehicles (pre-1992). In vehicles made after this year, there are no fuel line corrosion problems.

Warranties: Many major companies (such as Caterpillar) will warranty engines using up to a 5% Biodiesel blend. The warranty does not cover defects in the case of faulty fuel, but this is the case with all warranties.

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Factsheet prepared by The Student Advocates for Valuing the Environment (SAVE) Foundation
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